SIEMENS

MAMMOMAT 3000

RX

Printer-connection kit

Installation and Setting Instructions

RX B7-230.033.04.01.02 english
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Scope of delivery

Printer-connection kit 62 58 151 X041E, comprising Connection cable, Floppy disk, Cable protection, Installation and Setting instructions.

Documents required

M3000: Service Instructions RX B7-230.061.01...

Measuring instruments required

Service PC e.g. Siemens-Nixdorf PCD 3NSX/20 or similar.

Tools required

Common installation tools.

Generator software required

M3000: version 1.4 or later.

Printer requirements

To be provided by the customer:

Any printer with serial interface for RS232, fulfilling national standards regarding safety, and being responsive to EPSON printer or compatible commands. The Star printer DP834OS from Star Micronics Co may also be used.

The EPSON codes used are:

ASCII	Hex	Meaning
CAN	18	Clear printer buffer
ESC @	1B, 40	Reset printer
ESC C 6	1B, 43, 36	Define page length to six lines
ESC O	1B, 4F	Cancel bottom margin
ESC 2	1B, 32	Set line spacing to 1/6 inch
ESC M	1B, 4D	Set pitch to 12 cpi
ESC E	1B, 45	Bold print ON
ESC F	1B, 46	Bold print OFF
CR	0D	Carriage return
LF	0A	Line feed

The communication parameters are as follows:

Baudrate:	9600
Data bits:	8
Stop bit:	1
Parity:	None
Handshake:	X-on/X-off

Removal of covers

1 Remove the front cover (1/Fig. 1) from the generator.

2 Remove the cable-outlet cover (2/Fig. 1) at the back of the stand.

3 Remove the cable-duct covers.

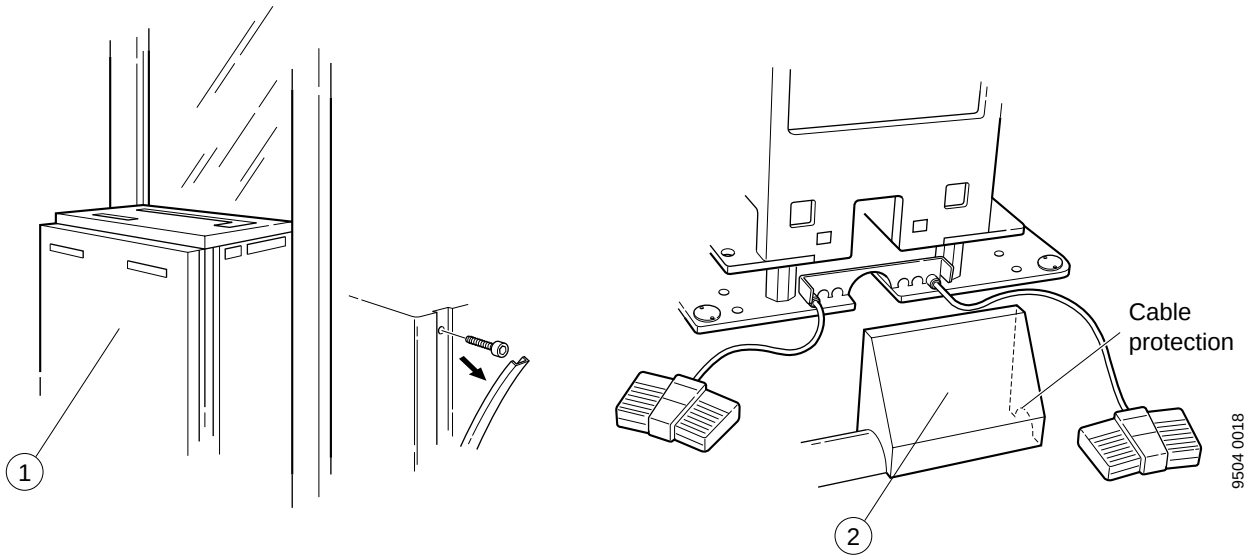

Figure 1 Removal of covers

Cable laying

1 Lay the printer cable between generator and stand, in the same cable-duct compartment as for the IONTOMAT signal cables, unit-control cable and power-supply cable, see Fig. 2. Ensure sufficient cable length between cable entry and connector X990 on p.c. board D702 in the generator, see Fig. 3.

2 Strain-relieve the printer cable at the back of the stand as shown in Fig. 2.

3 Attach additional self-adhesive cable protection to the cable-outlet cover, see Fig. 1.

4 Lay the printer cable along the nearest wall, and up to the printer.

Note!

The printer shall be placed at least 1.5 m from the patient. The total length of the printer-connection cable is 8 m.

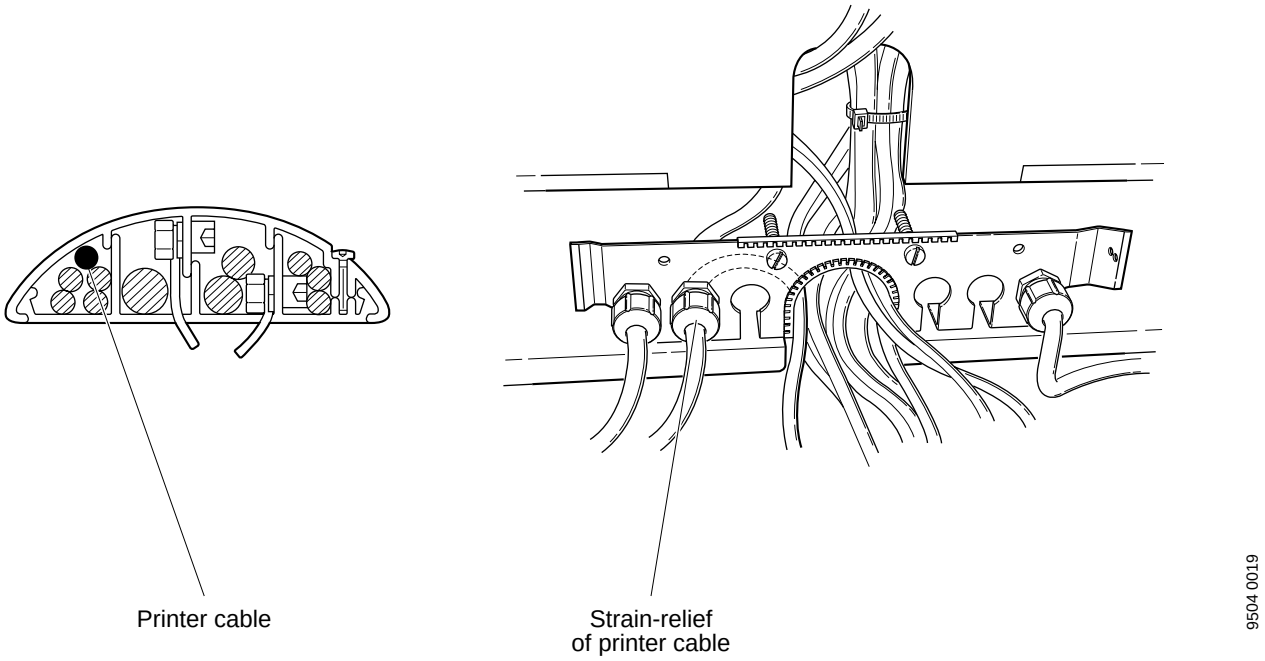

Figure 2 Cable laying

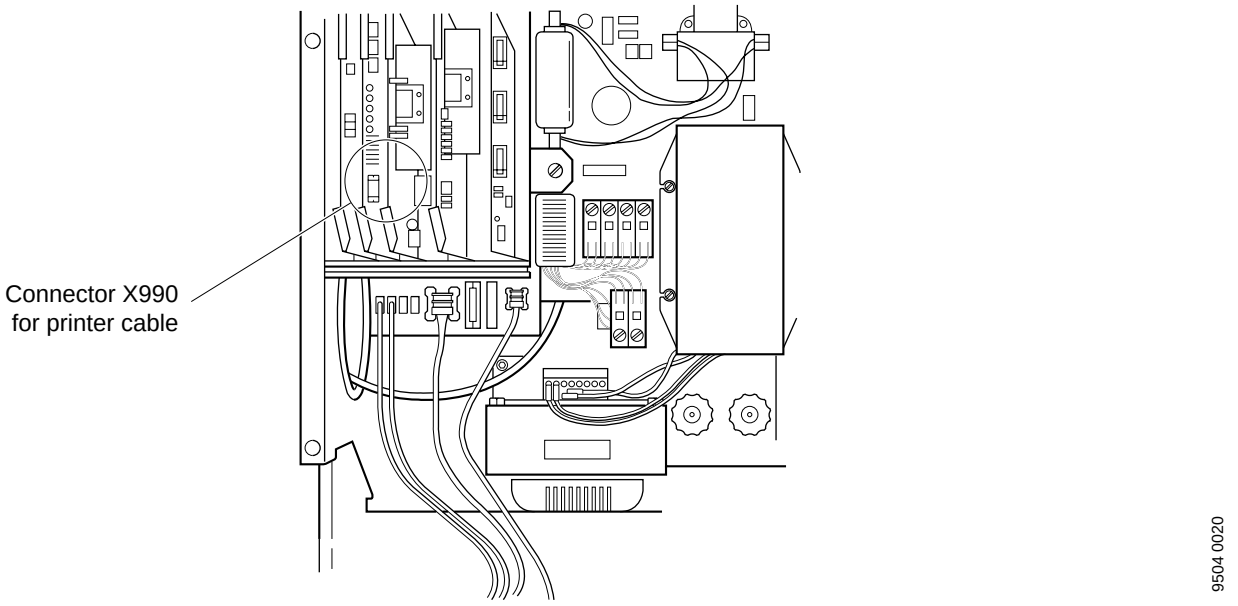

Figure 3 Connection of printer cable

Programming for connecting the printer

1 On the D702 board, set the switch S3 to pos. "1".

Note!

Working with the service PC is described in the Service Instructions for M3000.

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2 Connect the service PC to D702.X990.

3 Insert the service floppy disk and start the *Service* program.

4 At the main menu, select *Configuration* and press <Enter>.

5 Select *Miscellaneous* and press <Enter>.

6 Select *Printer* and press <Enter>.

7 Select *RS232C* using the UP and DOWN cursor keys.

8 Store the programmed values by pressing the <F2> function key.

9 Quit the program by pressing the <F10> function key.

10 Remove the service floppy disk.

Configurating the M3000

1 Insert the M3000 label configuration floppy disk.

2 Type *lab3000* and press <Enter>.

3 Type name of institution (max. 27 characters). If the name is shorter than 27 characters, fill up the line with spacings. Press <Enter>.

4 Type number of labels to be fed by the printer when pushing the limit button on the control panel and press <Enter>. This number is dependent on the printer model. Enter a value from 1 to 9 to make it easy to tear off the written label.

Note!

In order to make the form feed operate, the printer must be turned on after the Mammomat, or an exposure must be performed.

Use only the default label set up when configurating the M3000.

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5 Select *Save Default* to load the default label setup.

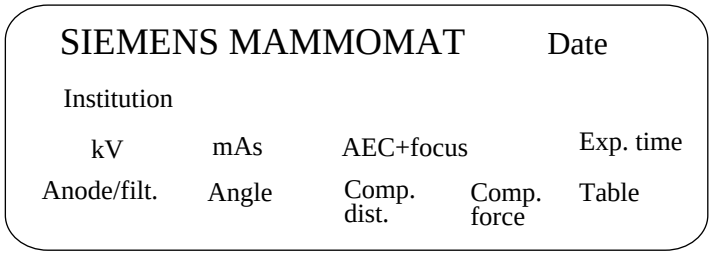

Figure 4 Default label.

Field	**Input value**
Date	Month, day, year.
kV	kV-value for the exposure.
mAs	mAs-value for the exposure.
AEC+focus	Density correction for the exposure. LF for large focus. SF for small focus.
Exp. time	Exposure time in seconds.
Anode/filt.	Mo/Mo Molybdenum anode/Molybdenum filter. Mo/Rh Molybdenum anode/Rhodium filter. W/Rh Tungsten anode/Rhodium filter.
Angle	The projection angle during exposure.
Comp. dist.	Compressed thickness.
Comp. force	Compression force.
Table	18x24 table without grid. 18x24 G table with grid. 24x30 table without grid. 24x30 G table with grid. MAG 1.5 magnifying table (magnification factor 1.5). MAG 1.8 magnifying table (magnification factor 1.8). Stereo biopsy unit.

6 *Quit*. Use quit to exit this program.

Measures after configurating

1 Shut down the system.

2 On the D702 board, set the switch S 3 to pos. "2".

3 Disconnect the service PC and connect the printer cable.

4 Reinstall all covers.

After each exposure, the label is printed out automatically.

Label layout

The labels shall have at least 40 printable columns and 4 printer lines. The label must be at least 90 mm wide and have a height of approximately 20 mm. There shall be 6 lines 1" (25.4 mm) with a line spacing of 1/6" (4.2 mm) between the start of one label to the start of the next.

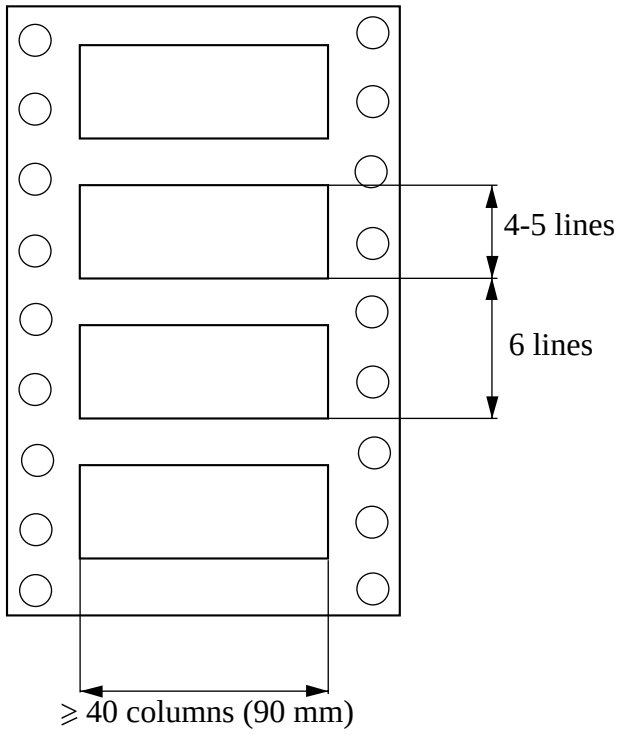

Figure 5 Label layout.

Operating the printer

The printer and the Mammomat can be switched on in any order. The form feed of labels can be done either directly on the printer, or by pressing the limit button on the control panel. If the limit button is used, the number of labels specified in the label configuration program (in the form feed field) will be fed. While the limit button is also used for error resetting, the form feed will work only if there are no errors presented in the mAs window.

Note!

Form feed by pressing the limit button will only work if the printer is switched on after the Mammomat, or after an exposure has been performed.